

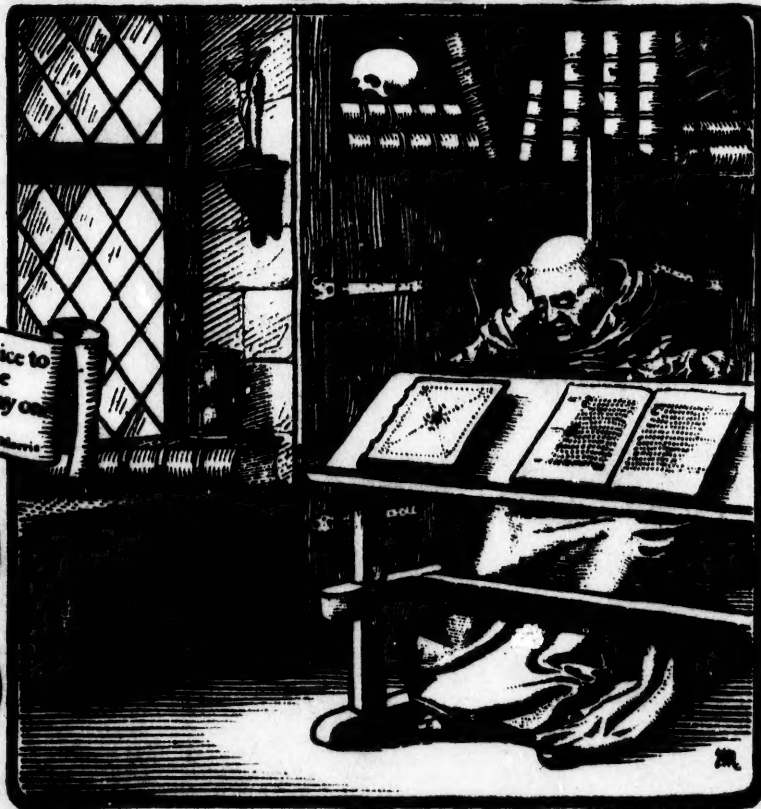
# On the Making of Printed Books

I thought it would be nice to  
have a Book or two one  
cared for, printed in a way one  
would like to see them.

William Morris

Issued  
by

Warwick B<sup>ros</sup> & Rutler  
Toronto.





Toronto.

Nov 30, 1900.

Dear Mr Hathaway,

Thank you very  
much for the very  
beautiful copy of  
the booklet, "on the  
making of Printed  
Books". I have a  
great love for  
fine printing and  
fine books, that  
is one of many reasons  
that I am your, &  
Yours very truly,  
E. J. Macdonald J. B. McIlwain

Nov 21 1874

Dear Sir

I have the honor to acknowledge the receipt of your letter of the 19th inst. in relation to the above named matter.

Very respectfully

Yours truly

Wm. H. Smith

Secretary

of the

Board of

Education

# On the Making of Printed Books

To University of Toronto

This booklet is from the  
Library and pen of the  
late E. J. Hathaway,  
one-time chairman of  
Toronto Public Library  
Board.

Presented by

Maud (Snarr) Hathaway  
(Mrs. E.J.)

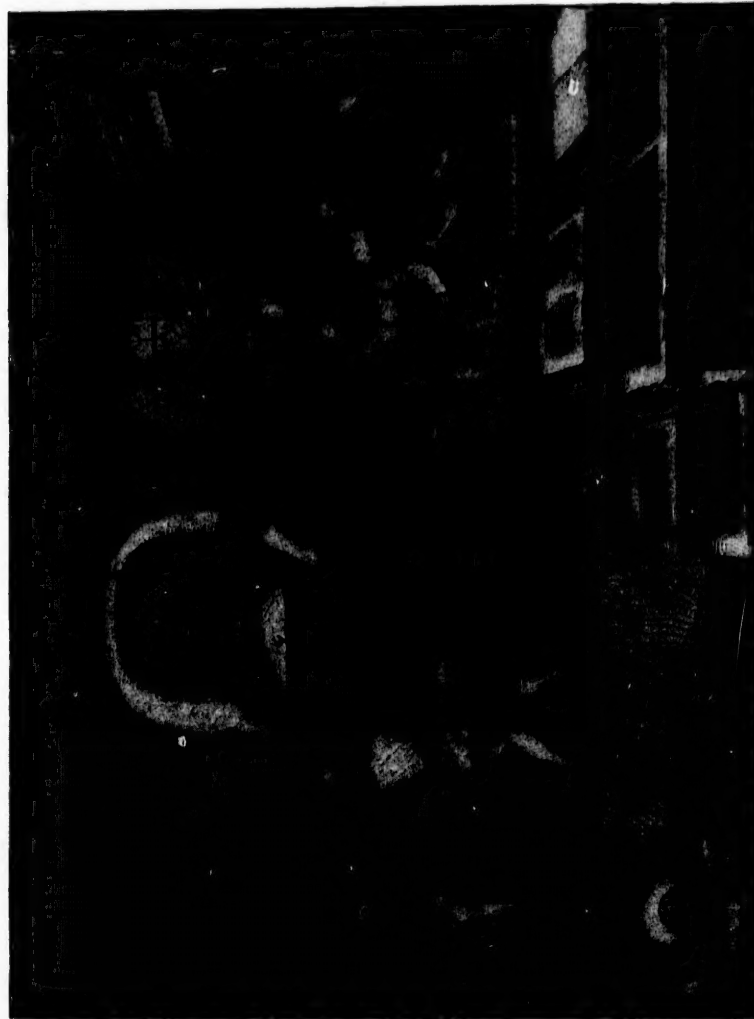
This edition printed on Japan Vellum is limited to  
twenty-five copies of which this  
is Number

**22**

REPRODUCED FROM  
ORIGINAL COPY



251657  
10-1-58



*"The old laborious ways have given place to new and simpler methods."*

Printing Office  
Fifteenth Century



Bb  
H

# On the Making of Printed Books

*A Treatise on the Preparation of  
Manuscript, the Correction of Proofs  
and the details of Book-making*

[by Ernest J. Hathaway]



Toronto  
Warwick Bro's & Rutter  
MDCCCC

281667  
18-1-33



Entered according to the Act of the Parliament of  
Canada, in the year 1900, by WARWICK BRO'S &  
RUTTER, Toronto, at the Department of Agriculture.

## On the Making of Printed Books



PRINTING is generally understood to be the process by which an impression is transferred to paper from metal types cast in high relief. There are other processes of printing, such as steel and copper-plate work and lithography, but as in these a new engraving is necessary for each subject, their use in the production of books and newspapers is impossible. Printing, therefore, is typography. The use of moveable type is the secret of printing, and the employment of separate and distinct letters in the form of words and thoughts is its true mission.

Methods of preserving written language have existed almost from the beginning. Some of these were primitive in the extreme, but others, considering the period and the crudeness of the tools that must have been used, were most ingenious. Impressions of engraved inscriptions in clay, in wax and in stone have been discovered in the ruins of the ancient world, and it is known that the old Roman potters employed separate letters or dies for

Early  
methods of  
printing

## On the Making of Printed Books

stamping their inscriptions, impressing each letter or sign consecutively in the soft clay, and using stamps that in all probability resembled the type used for printing by the modern method. It was not, however, until the middle of the fifteenth century that the combination of paper, ink and type—the materials necessary for printing—was first made and the art of printing discovered.

The  
invention of  
printing

The most important feature in connection with the invention of printing was the first use of the type mould in which the letters were made, for the use of moveable type was practically but a modern application of old methods. The use of the printing press had long been known, for playing cards and books printed from engraved blocks had been in use for years. Nor was the use of paper in books a new discovery. Though despised by the professional copyists as unworthy of a good volume, paper had often been used in missals and other religious books intended for those too poor to purchase vellum copies. But in order to print books successfully it was necessary to have a supply of type, for not only were the blocks hitherto used inferior and unsatisfactory, but their excessive cost put them beyond reach. The invention of a method for producing type in larger quantities, in greater variety, and cheaper was therefore an important discovery. With the introduction of moveable type paper soon took the place of vellum, and the work of the printer speedily superseded that of the copyist.

## On the Making of Printed Books

The development of the art of printing since the days of Gutenberg is one of the most interesting of the world's romances. Each succeeding generation has contributed its inventions and improvements. The old laborious ways have gradually given place to new and simpler methods, and toilsome labor is now performed by machinery that in its action is almost human.

The general features of the books of today, however, are little different from those of the fifteenth and sixteenth centuries. As in other branches of industrial art, the improvements that have taken place have been mainly in cheapness and rapidity of production and in the use of finer materials. For the most part in the making of books type is still set by hand as of old ; but in variety and beauty of design, in the fitting of different sizes and kinds together, and in the expression of taste in their arrangement, the present is immeasurably in advance of any previous age. The mobility of type was never before so thoroughly nor so satisfactorily tested. With the improvements in facilities, for which the ingenuity of the type founders and the press builders is largely responsible, there is now a higher degree of skill among the workmen than ever before, and also a keener appreciation of artistic printing on the part of the reading public.

**Modern  
printing**

In few lines of trade, perhaps, is there so much detail as in printing, and none in which "a little knowledge" is of more real value. Most business men at one time or

## On the Making of Printed Books

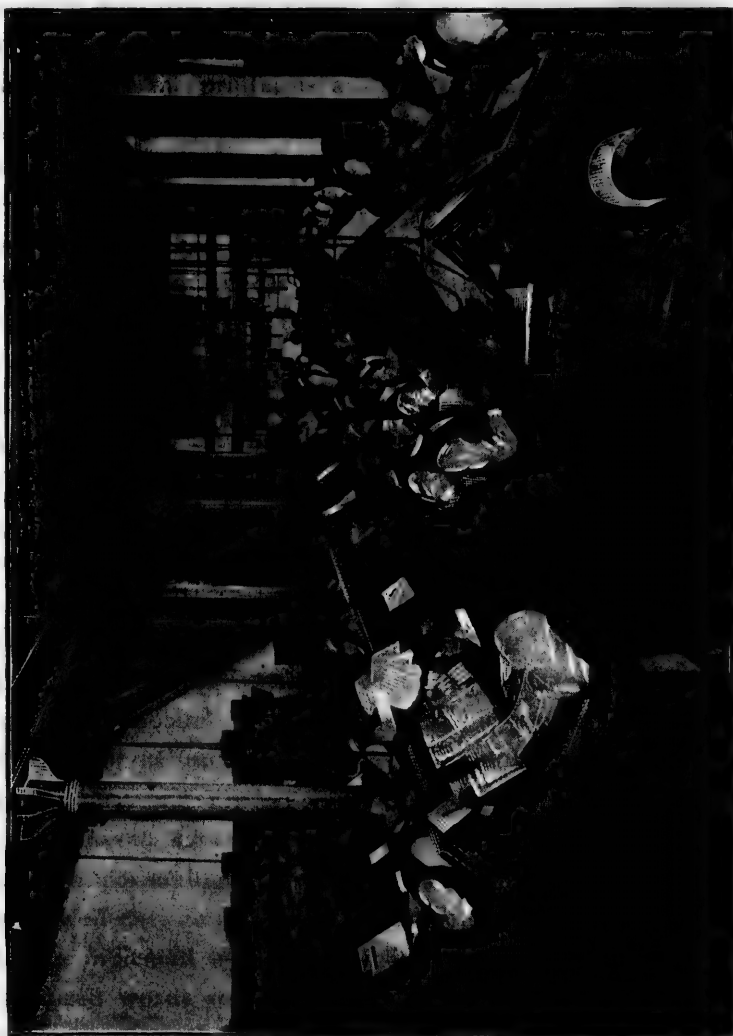
another are concerned with the preparation of printed matter, but few have any familiarity with the details of the work, or of the mechanical processes through which it must pass.

The making  
of a printed  
book

The first essential to the making of a book, magazine or catalogue is a clear idea of what is required. The size and general style of the book should first be decided. A similar book issued by another may be taken as a model, or a "dummy" of blank paper may be prepared showing the size, thickness, quality of stock and perhaps the binding. These details are too often neglected or deferred until the work is partially finished, and, almost invariably, the result is disappointment and disaster. All books are not prepared in the same way, nor will the same plan and style serve for those of a different character, even if similar in size. There must be harmony between the contents and the clothing of a book, and its subject, purpose and probable use must all be considered.

The  
preparation of  
manuscript

One of the most important of the mechanical details to be arranged, and one in which the advice of the printer should have due weight, is the selection of suitable type for both the body of the book and for the display headings. The preliminary details having been arranged, the manuscript or "copy" may be considered. All "copy" should be carefully written—or typewritten, which is better—on sheets of uniform size—never larger than foolscap—and properly edited before being put into type. The latter is



*"For the making of books type is still set by hand as of old."*

### **Composing Room**

**Warwick Bro's & Rutter**





## On the Making of Printed Books

a point too often overlooked. When work is undertaken upon which an estimated price has been given, the copy as received by the printer is assumed to be correct, and all changes afterwards made, even though for the purpose of making the book more perfect, are an additional expense, and should be paid for by those responsible. Proof impressions taken from the type are submitted in order that all typographical errors in the setting may be detected; and when it is remembered that in an ordinary page of type there are upwards of two or three thousand separate pieces of metal, each of which is handled separately, one can readily understand that an alteration, either by way of adding or striking out a few words, may cause the overrunning of a large amount of matter and consume a great deal of time. Punctuation, capitalization and such details should all be carefully marked in the copy, for although every large printing house has a general style of its own, it is not wise to leave too much to the compositor. Reasonable care is exercised by the compositor in interpreting "copy," but the ideas of the printer may not always agree with those of the author, and to avoid difficulty it is better to spend a little extra care in correcting the manuscript. Paragraphs should start well back in the line, and extracts should be indented or else indicated by a vertical line drawn down the side. Italicized words should have a single line drawn beneath them, words to be set in small capitals should have two

rom. lines, and words that are to appear in full-sized capitals ~~x~~ should be underlined three times.

#9 In every large printing house all matter is read and revised several times before being printed off. Proof-reading is a most important branch of the Business, and ~~and~~ <sup>le.</sup> the greatest care must be exercised to prevent mistakes. In addition to these readings most people, as an extra <sup>o</sup> precaution, wish to read their own proofs to avoid the ~~the~~ chance of errors. [The correcting of proofs is an <sup>Q</sup> unwelcome task to most men, but with a little <sup>te.</sup> practice the ordinary sins are soon learned and the work loses <sup>tr.</sup> of its many terrors.]

run in first For convenience, the type is usually set in <sup>long</sup> strips, or <sup>t</sup> galleys, for the ~~last~~ reading, as changes in arrangement <sup>close up</sup> are sometimes unavoidable, and they can be made more easily before the type is put into page form. In <sup>o</sup> marking corrections in ~~the~~ proofs certain signs are <sup>l</sup> employed which indicate to the printer the alterations to be made. The correction should always be shown by <sup>?</sup>

The correcting of proofs

2 marking through the letter or word to be changed and indicating in the margin. Changes ~~interlined~~ <sup>stet.</sup> in the printed matter are liable to be overlooked. When all corrections have been duly made and finally approved, the proof should be marked "O. V." or <sup>✓</sup> correct on being returned to the <sup>✓</sup> printer. <sup>✓</sup> This proof is then the property of the printer and should be <sup>e</sup> retained by him in case of any future reference or dispute. <sup>c</sup>

the alteration

spacing

## On the Making of Printed Books

lines, and words that are to appear in full-sized capitals should be underlined three times.

In every large printing house all matter is read and revised several times before being printed off. Proof-reading is a most important branch of the business, and the greatest care must be exercised to prevent mistakes. In addition to these readings most people, as an extra precaution, wish to read their own proofs to avoid the chance of errors.

The correcting of proofs is an unwelcome task to most men, but with a little practice the ordinary signs are soon learned and the work loses many of its terrors. For convenience, the type is usually set in long strips or galleys for the first reading, as changes in arrangement are sometimes unavoidable, and they can be made more easily before the type is put into page form. In marking corrections in the proofs certain signs are employed which indicate to the printer the alterations to be made. The correction should always be shown by marking through the letter or word to be changed and indicating the alteration in the margin. Changes interlined in the printed matter are liable to be overlooked. When all corrections have been duly made and finally approved, the proof should be marked "O. K." or "correct" on being returned to the printer. This proof is then the property of the printer and should be retained by him in case of any future reference or dispute.

The  
correcting of  
proofs

## On the Making of Printed Books

The work of "making up," or dividing the type into page lengths, is one requiring the greatest of care. Every page must be of equal length, a uniformity of spacing between the lines and paragraphs must be observed, and chapter headings and sections must be properly spaced and made to begin and end in suitable positions. The folios, or page numbers, and headlines are added at the same time, and the book is put into final shape ready for the press.

**The paper in  
printed books**

The selection of a suitable paper for a book or catalogue requires some little consideration. It is made in many varieties and sizes, and the character of the book should largely determine the kind of paper that is used. There are two general varieties in common use, "wove" and "laid," but almost any desired color, thickness or finish can be made to order. Laid paper may be identified by the pattern of close vertical waterlines running through the sheet, and is usually made with a rough finish. Wove paper has no such watermark, although a design or trademark may be found at times in special papers. As a general thing, laid papers, owing to their rough surface, are better suited for books without illustrations, while wove papers are best adapted to books and magazines requiring finer effects, or those containing illustrations. The general use of fine engravings is responsible for many improvements in the details of book making, but in none perhaps has it effected so great a

## On the Making of Printed Books

change as in the paper of which books are made. Until about 1850 all presswork was done on dampened paper, and to this was due the heavy black impressions seen in the books printed in earlier years. The introduction of the use of the calendar rolls by the paper makers, however, gave an evenness of surface and a glossiness of finish to the paper that made it possible to print wood cuts and the other engravings used at that time, with even better results without wetting the paper. At the present time all paper is printed dry. Coated paper was first introduced about 1880, and since that time half-tone engravings, which in recent years have come into general use, have practically driven wood cuts out of the field, and the pressman is enabled to produce the finest and most delicate effects of shading and coloring on a surface of paper as smooth as that of polished marble. Coated paper is the only kind with a surface sufficiently hard and smooth for printing such engravings in anything like a satisfactory manner.

The use of engravings has now become so general that few books seem complete without them. The discovery of a method for reproducing photographs without materially sacrificing the tone effects revolutionized the whole engraving business. The cost of wood cuts was so excessive that few could afford to illustrate their books or magazines, but now the cheapest publications are often illustrated the most profusely.

The use of  
illustrations

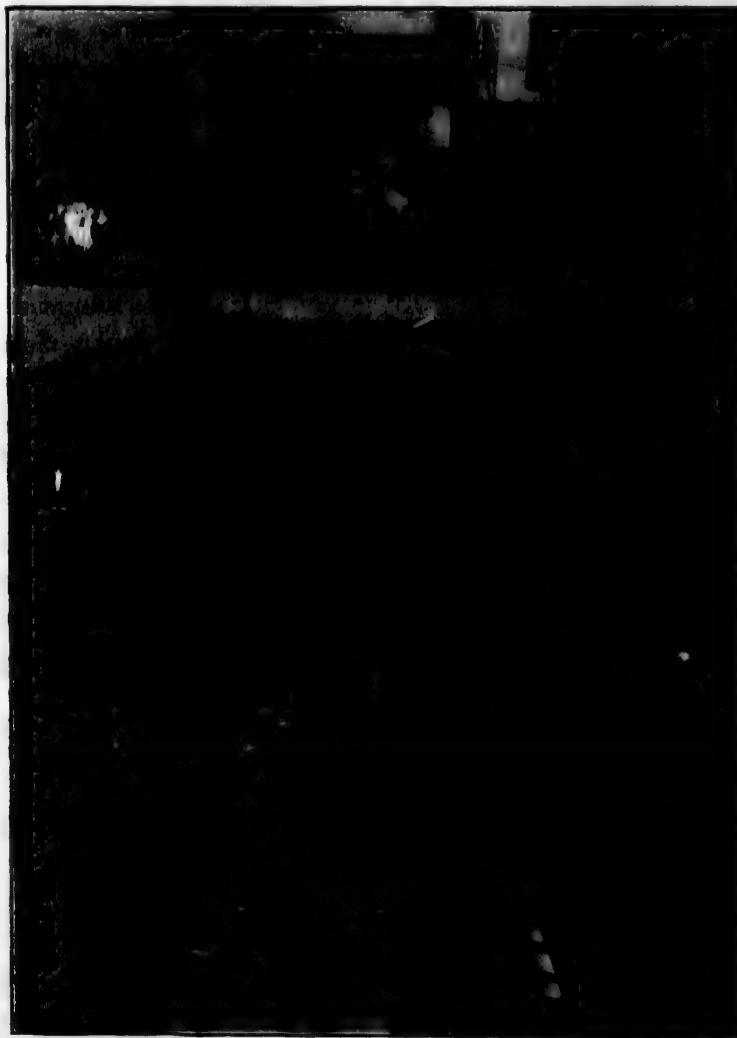
## On the Making of Printed Books

Almost any distinct photograph may be reproduced by the half-tone process, and tones that are too heavy or too light in the original may be lightened or darkened, as the case may be, by retouching the picture. Engravings can be made from any size of photograph, although the results of enlarging a picture are not usually so satisfactory. Nor is it satisfactory to make a half-tone engraving from a printed picture. The engraving of line cuts—such as newspaper illustrations—is made by photography also, and is the cheapest kind of engraving, but an accurate drawing or print in black and white is necessary for the reproduction.

### The work of the pressman

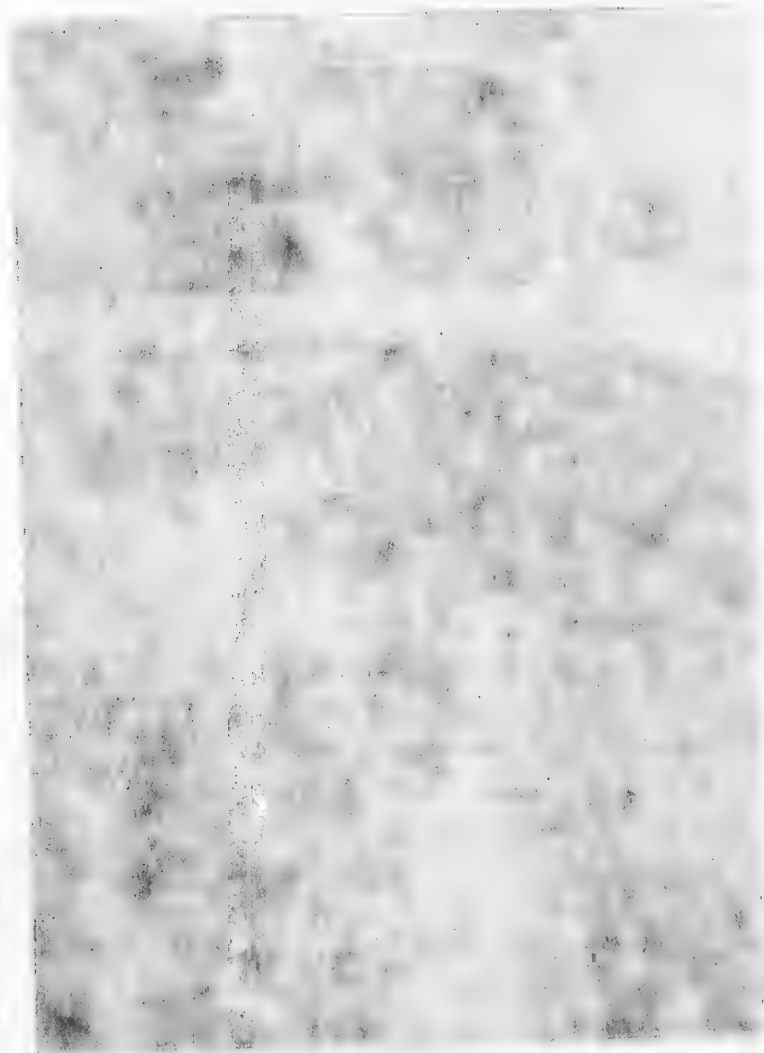
The merit in the work of the pressman consists in the skill with which he secures a uniform impression from the type and a proper and even distribution of ink over the entire form. The pages of type are so arranged in a form or "chase" that when the impression has been taken on one side of the paper and then upon the other, the pages, when the sheet is folded, appear in proper numerical order. The first impression from the type usually shows that the surface over the thousands of pieces of metal is not perfectly level, and it is the pressman's duty to "make ready" the form so as to secure a perfectly even impression. The "form," as the "chase" and type are called, is placed on the flat bed of the press, and in the course of taking the impression it is carried first under the inking rollers and then under a heavy cylinder wrapped in

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" Machinery that in its action is almost human. "

Section of Press Room  
Warwick Bro's & Rutter





## On the Making of Printed Books

paper, on the surface of which the impression is made. The pressman's duty is to level up the unevenness shown by the first impression by pasting pieces of tissue paper on the face of the cylinder, until the desired effect is attained, so that when the paper passes through the impression may be uniform.

A great deal of skill is required to bring out the proper tones and shadows in fine engravings, and a pressman must have a good artistic sense for the developing of delicate effects. He must see that his ink is of the right consistency and color, that his rollers perform their work faithfully, that the evenness of the impression is maintained throughout the edition, and that the type in the form does not work loose. He must be keen and watchful at all times, for however carefully the work may have been prepared, its beauty will be destroyed if the presswork is careless.

The final stage in the making of a book is that of binding.

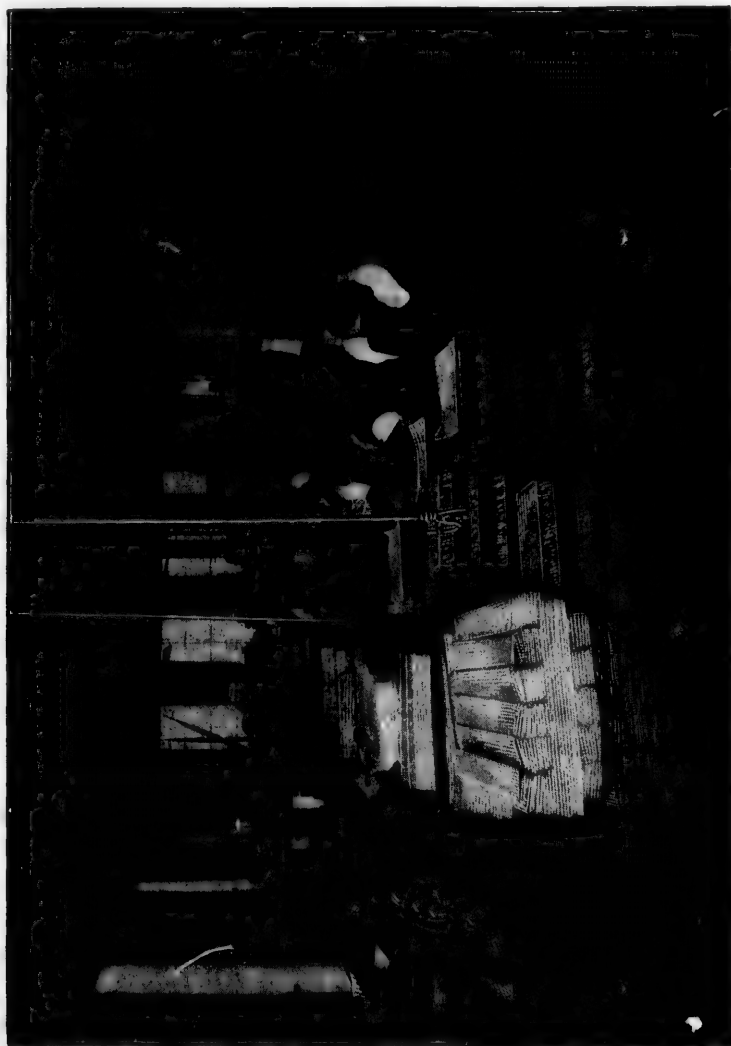
Until recent years the folding and sewing of the printed sheets were done by hand, but now these processes are largely performed by machinery, although some still keep to the old and more reliable methods. Sewing by hand, at all events, is stronger and much better suited than machine work for larger books. The work of binding involves much detail, and a book passes through many hands in its course from the printer to the

The work of  
the binder

## On the Making of Printed Books

reader. When the sheets have been folded they are arranged consecutively in separate piles for the gatherer, who makes up the books by taking a sheet from each pile in succession. The books thus gathered are then "collated," or checked over and examined in order to avoid omissions or duplicate sheets. They are then subjected to heavy pressure to give them solidity, and afterwards handed over to the sewers, who with needle and thread build up the books sheet by sheet, attaching each section separately to the cords upon which it is sewn.

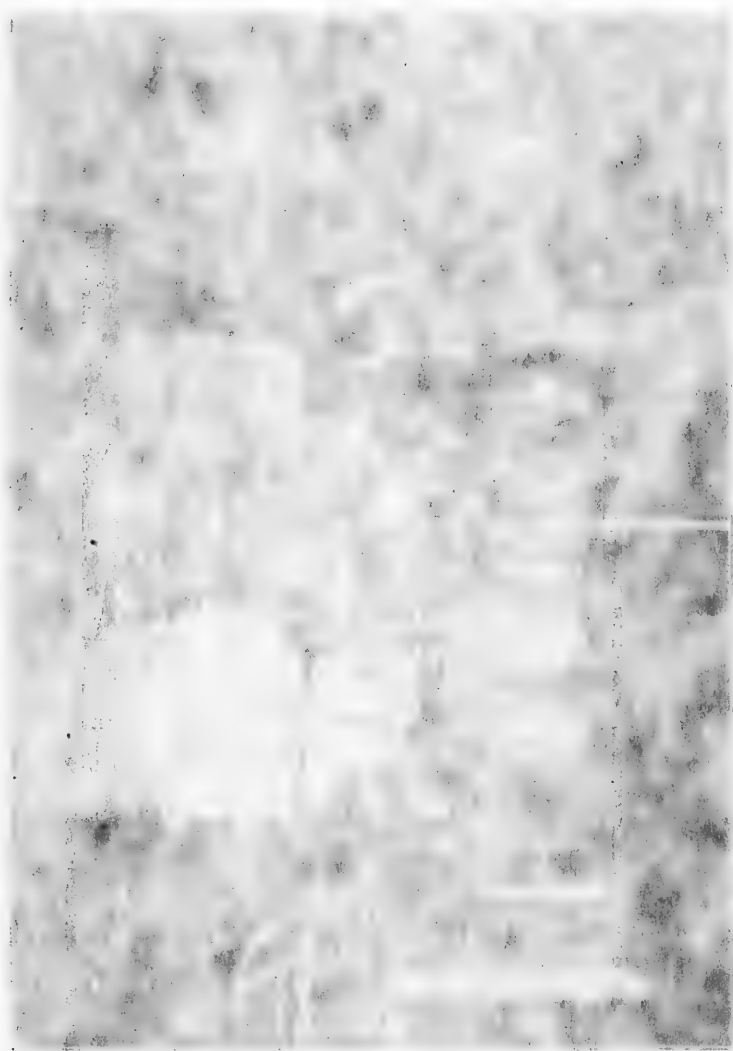
The question of cut or uncut edges is one alone of individual taste. Obviously a book for general use should have the edges trimmed, but the tendency at present seems to be to leave them altogether uncut or to trim the top edge only and to stain or gild the surface. The original idea of cloth binding was that it should be merely a temporary covering to preserve the book until the owner was ready to have it properly clothed in a full suit of leather; but so substantial and attractive are the cloth bindings of today that very few ever receive anything better. The cloth covers are usually made ready while the sewing and folding are doing, so that by the time the volume reaches the hands of the binder it requires merely to be rounded and lined on the back to secure the sections more firmly, and encased in the cover.



*"The final stage in the making of a book is that of binding."*

**Section of Bindery**

**Warwick Bro's & Rutter**



## Signs used in Proof Reading

- ∆ *dele*, expunge.
- 9 turn an inverted letter.
- # more space.
- ) less space between words or letters.
- ( print the diphthong *ae* or *oe* as a single character :  
thus, *æ*, *œ*.
- × directs attention to bad or foul type.
- ┘ directs attention to a space or quadrat that stands up.
- ..... placed under words that have been erased, and which  
it is subsequently decided shall remain, the word  
*stet* (let it stand) being written in the margin.
- [ begin a new paragraph ; also, bring a word to the  
commencement of a line.
- ¶ begin a new paragraph.
- ≡ drawn under words or letters which are to be printed  
in CAPITALS.
- = drawn under words or letters which are to be printed  
in SMALL CAPITALS.
- Italics, if drawn under a word printed in Roman  
letters ; Roman letters, if drawn under a word  
printed in *Italics*.
- ti.* transpose.
- l.c.* lower case ;—used when a letter or word that should  
be printed in common letters has been put in  
capitals or small capitals.
- w.f.* wrong font ;—used when a character is not of the  
proper size or kind of type.
- s.c.* or *s. caps.* print in small capitals.
- Qy.* or ? Query ;—used in case of doubt.

## Sizes of Type used in Book Printing

THE sizes of type in general use for the printing of books, together with the newer terms adopted by the type-foundries in the United States, are as follows :

Agate	-	-	5½ point
Nonpareil	-	-	6
Minion	-	-	7
Brevier	-	-	8
Bourgeois	-	-	9
Long Primer	-	-	10
Small Pica	-	-	11
Pica	-	-	12
English	-	-	14

There are several sizes smaller and several larger than these, but their use is limited. In certain kinds of work fine effects are secured by inserting strips of thin metal or "leads" between the lines of type. The pages in this brochure are so "lead."

The following will give an idea of the comparative sizes of the types used in the printing of books :

**AGATE TYPE.** This is the smallest size of type in general use. It measures fourteen lines to an inch, and is the basis of measurement for newspaper advertisements.

**NONPAREIL.** This is generally used for foot-note references, for side-notes in law books, or for tabular, or figure, work with rules.

**MINION.** This is used largely in tabular work and for foot-note references in place of Nonpareil.

**BREVIER.** This is used chiefly in newspaper and magazine printing, and for extracts in matter set in a larger size.

**BOURGEOIS.** The size of type next larger than Brevier and smaller than Long Primer. Used largely in magazine printing.

**LONG PRIMER.** This type is used in the printing of this brochure, but the matter is spaced with strips of metal called "leads."

**SMALL PICA.** The size next larger than Long Primer. It is suitable for the larger sizes of books.

**PICA.** This is the standard of measurement in book printing. It is largely used in prefatory matter.

**ENGLISH.** The largest size of type used in book printing. It is used only in very large books.

**"ON THE MAKING OF PRINTED BOOKS," AS WRITTEN  
BY E. J. HATHAWAY, HAS BEEN PRINTED AND ISSUED  
FOR THE INFORMATION OF THEIR CUSTOMERS AND OF  
OTHERS INTERESTED IN THE PRINTING OF BOOKS, BY  
WARWICK BRO'S AND RUTTER, PRINTERS AND BOOK-  
BINDERS, 68 AND 70 FRONT STREET WEST, TORONTO.**

MIXION. This is used largely in tabular work  
and for foot-note references in place of Roman.

Barvier. This is used chiefly in newspaper  
and magazine printing, and for extracts in matter  
set in a large size.

Bourgeois. The size of type next larger  
than Premier and smaller than Long Primer.  
Used largely in magazine printing.

Long Primer. This type is used in  
the printing of this brochure, but the  
matter is spaced with strips of metal  
called "leads."

Swash Pica. The size next larger  
than Long Primer. It is suitable for  
the larger sizes of books.

Pica. This is the standard of  
measurement in book printing. It  
is largely used in preliminary matter.

English. The largest size  
of type used in book printing.  
It is used only in very large  
books.



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